

Fluid Bearing Failure Probability Evaluation

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Auteur	Charki, Abderafi [1], Laronde, Rémi [2], Bigaud, David [3], Guérin, Fabrice [4]
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Mots-clés	Design [5], Finite [6], first [7], fluid [8], Monte [9], stochastic [10]
Résumé en anglais	<p>This paper presents a methodology for the failure probability evaluation of a fluid bearing which plays a significant role in stability of machines rotors, mechatronic systems and high precision metrology systems. The static and dynamic behavior of a fluid bearing depends on several parameters such as external load, the dimensions of the bearing, the supply pressure, the manufacturing capability and fluid properties. In this paper, we present how the failure probability of a fluid bearing is evaluated using Monte Carlo Simulation and FORM (First Order Reliability Method) after the approximation of the performance function by a numerical Design Of Experiments (DOE).</p>
Notes	Date du colloque : 08/2009
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Lien vers le document en ligne	http://www.researchgate.net/publication/48270981_Fluid_bearing_failure_p... [12]

Liens

- [1] <http://okina.univ-angers.fr/abderafi.charki/publications>
- [2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=2311>
- [3] <http://okina.univ-angers.fr/d.bigaud/publications>
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